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If You Don't Know Where You're Going, Any Path Will Get You There: Reconsideration of Distributed Energy Rates and Tariffs

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Where Are We Going?

Who cares?

Do nothing!

Why worry?

What Happens to DER While We Decide?

- Where are we going now?
- What direction at the next fork in the road?

We Must Reduce the Uncertainty for DER!

- Rates for standby/backup power?
- Access to the wholesale market?
- ISO/utility payment for curtailment?
- Charges for power export when distribution line loading is reduced?
- Interconnection fees and charges?

Two Clear Paths to Inefficiency and Inequity

1. Existing Pricing Signals for DER
2. Current Market Access Rules for DER

Choice is stifled, and

We let "no good DER go unpunished"

Pricing and Access: The Same Old Issues

- March 1999 *Distributed Generation Forum*
- Focus: interconnection
- Four groups of barriers
  - Interconnection *(Yes, technical issues are important…)*
  - High Transactions Costs *(…and standard contracts are needed.)*
  - Poor Pricing Signals *(But rates & tariffs present barriers…)*
  - No Market! *(…and customers' rights are limited.)*

Pricing and Access: Samples from the Field

- PUC Texas Rule §25.211.
  - … Sales of power by a distributed generator in the wholesale market …
  - … tariffs shall ensure that back-up, supplemental, and maintenance power is available to all customers and customer classes that desire such service until January 1, 2002.
- California PUC Rule 21:
  - … Distribution Service provided by [utility] during periods of curtailment or interruption of the Producer's Generating Facility, must sign separate agreements …
  - … Interconnection with [utility]'s Distribution System under this Rule does not provide a Producer any rights to utilize [utility]'s Distribution System

ROR Regulation

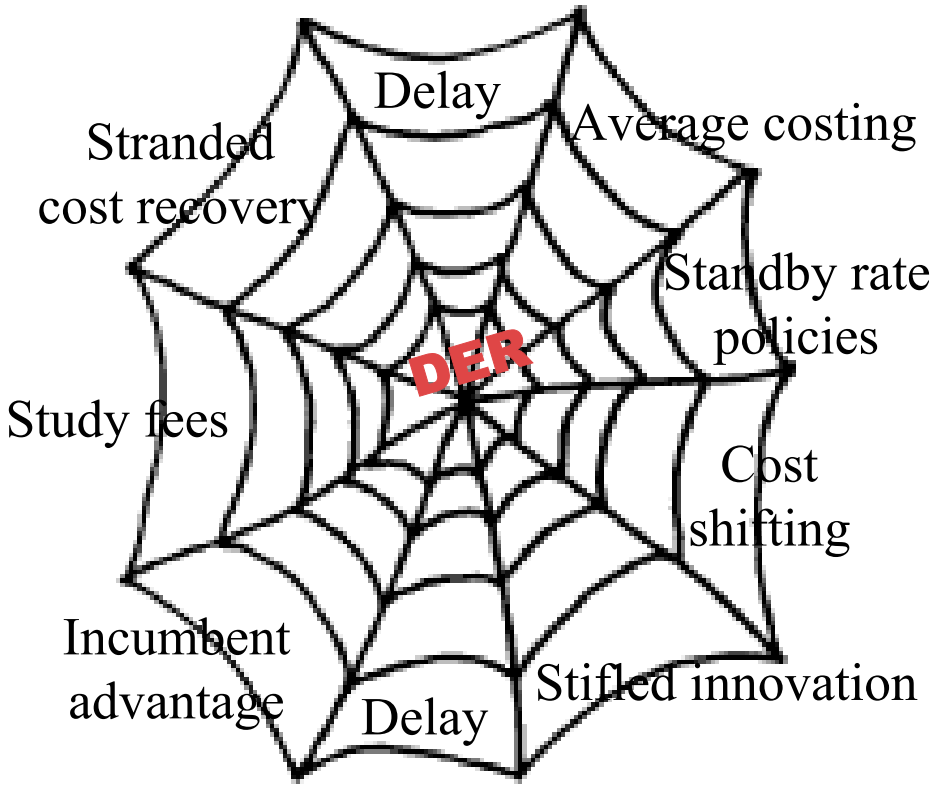
- Defects:
  - Encourages excessive capital formulation
  - Creates little incentive to cut costs
  - Creates allocation disorders
- Legacy:
  - Cost shifting
  - Average cost base rates with fuel price uncertainty
  - Marginal costing of fees and charges
  - Resistance to technological change

Restructuring's Future Legacy

- How are various utility functions separated?
- Is a code of conduct enforced?
- Are stranded costs socialized? What about new profits?
- Does a default provider scheme give anyone an advantage?
- Do we continue past pricing policies?

DER: Caught in the Legacies of Regulation

- Past practices create a web of constraints and barriers



Steps Along a New Path

Industry Structure

DER Issues

Distribution Service Rate Design

Model DER Tariffs

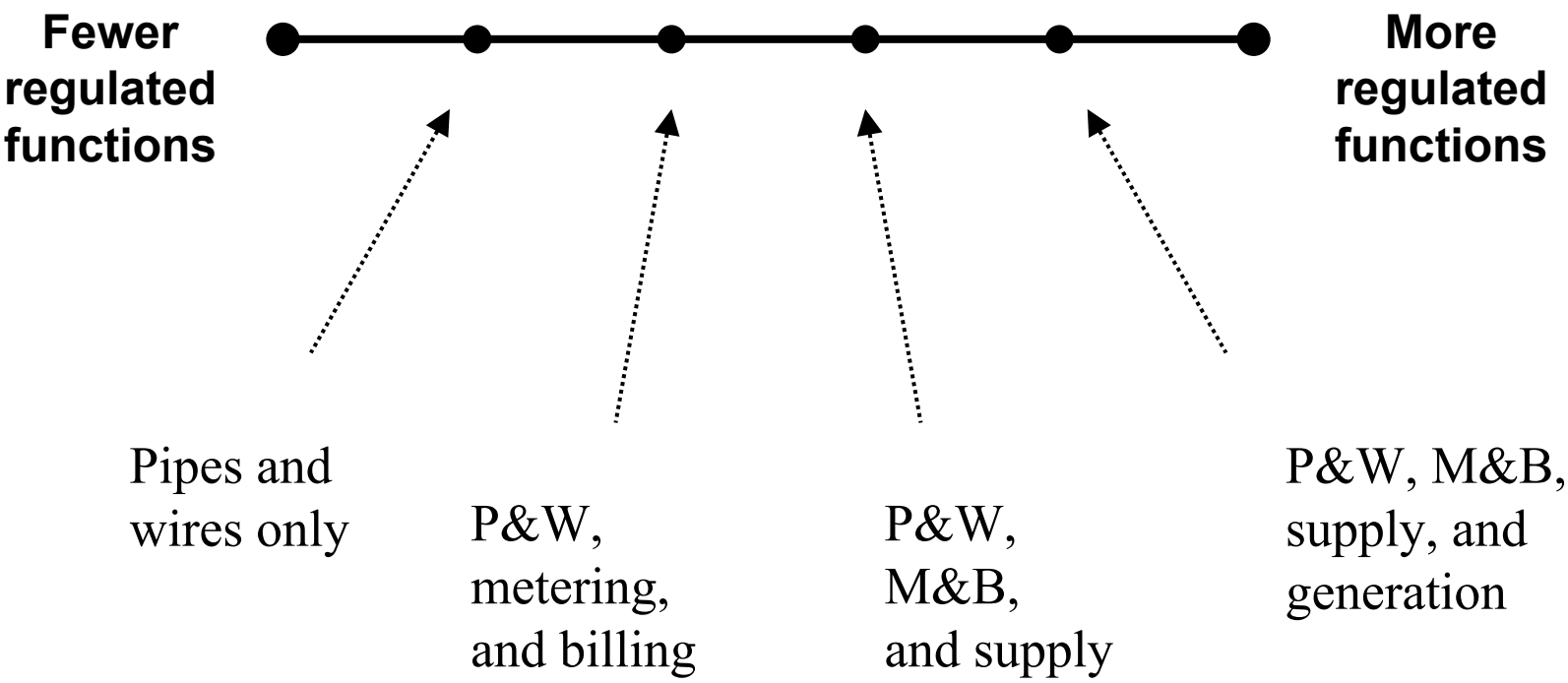
Education

Implementation

Step 1: Consider a Menu of Service Pricing Options

- Retail customer of any size chooses:
  - What? Power quality; reliability; fuel type; impact on distribution system
  - When? Time of usage
  - Where? Location of usage
  - How much? Amount used; amount exported

Step 2: Examine Industry Structure and Legal Issues



Step 3: Examine the Problems

- Regulated rates take on an aura of correctness with time
- Emphasis is on sunk costs, not efficient future behavior
- Each regulatory jurisdiction makes determinations based on past practices and a historical definition of fairness
- Customers with DER do not have typical load shapes
- Reduced power usage raises suspicion that DER customers are not paying enough (exit fees; stranded cost recovery)
- Incentives for demand-responsiveness may be viewed as subsidies

Step 4: Identify and Resolve Traditional Barriers

- Consider effect of scheduled/unscheduled maintenance on demand charges
- Narrowly define exit fees & stranded costs
- Consider availability and structure of standby and back up tariffs
- Create mechanisms for compensation for DER benefits, competitive procurement by ISOs, interruptible rate options
- Create rights of access to wholesale markets

Step 5: Seek Efficient Distribution Service Pricing

- Distribution service (wires) rates should address:
  - Time – Incremental distribution system costs are incurred largely to meet peak requirements
  - Geography – Location matters to reduce congestion and delay upgrades
  - Firmness of Capacity – Choice of power reliability and quality should matter

Step 6: Consider a Two-Part Tariff as an Alternative

- Component 1: Sunk fixed distribution system costs
  - Collected from all customers
  - Reflect time of use, firmness, and amount of use
- Component 2: Local incremental costs of the distribution system
  - Incremental benefit or cost due to changes in customer loads

Step 7: Take a Flexible Approach

- Traditional versus restructured markets – a fragmented industry structure prevails
  - Develop model DER rates and tariffs – States should choose what they need
- Emotions run high with rate design
  - Prepare a menu of options for regulated services – Customers should choose what they need

Project Phases: DER Rates and Tariffs

- Statement of the problem
- Presentations to regulatory groups
- Research of legal and institutional issues
- Consideration of preliminary DER tariff models at stakeholder meetings
- Model revision and review
- Consideration of revised DER tariff models at stakeholder meetings
- Presentations to regulatory groups